REMARKS/ARGUMENTS

This Preliminary Amendment is made to more particularly claim the present invention and in response to the Final Office Action dated April 10, 2007. Claims 1, 2 and 4-12 are pending in the present application. Claims 1, 2 and 4-12 have been rejected. Support for the amendments to the claims is found in canceled claims 2 and 4, 6-7 and 9-10, respectively, on page 23, lines 10-17, page 24, lines 1-9, page 53, line 45, and on page 54, lines 35-46. Applicants respectfully submit that no new matter has been presented. Claims 2, 4, 6-7 and 9-12 have been canceled. For the reasons set forth more fully below, Applicants respectfully submit that the claims as presented are allowable. Consequently, reconsideration, allowance, and passage to issue are respectfully requested.

Applicants would like to thank the Examiner for the after-final phone interview of May 16, 2007. We appreciate the courtesy and helpfulness of the Examiner in the interview. The claims have been amended in light of the points made by the Examiner in the interview.

Claim Rejections - 35 U.S.C. §101

The Examiner has stated:

> **Claims 5-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 5-10 appear to recite systems that can be implemented in software alone. The language of the claims raises the question of whether the claims include hardware required for the software to realize its functionality. Therefore, the claims are software, per se, and are rejected as being directed towards non-statutory subject matter.**

In response, claims 5 and 8 have been previously amended to clarify that the systems are computer-implemented. Furthermore, the server and connector are clearly hardware. Because the system is implemented with a server, which is hardware, the system is not implemented in

software alone. Applicants respectfully submit that claims 5 and 8, as amended, now comply with 35 U.S.C. §101. Dependent claims 6-7 and 9-10 depend from claims 5 and 8, respectively. Accordingly, Applicants respectfully submit that claims 5-10 overcome the rejection.

Claim Rejections - 35 U.S.C. §103

The Examiner has stated:

Claims 1-2 and 4-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Shachar (US 5,761,656), in view of Flanagan et al. (US 6,243,737 B1).

As to claim 1, Ben-Shachar substantially discloses a method of processing an application request on an end user application and an application server (abstract; col. 5 lines 2-16) comprising:

- **a) initiating the application request on the end user application in a first language with a first application program (col. 5 lines 6-10);**
- **b) transmitting the application request to the server and converting the application request from the first language of the first end user application to a form for the language running on the application server (col. 5 lines 3-12), wherein the end user application is connected to the application server through a connector (col. 5 lines 2-16, execution manager 150);**
- **c) processing said application request on the application server (col. 5 lines 6-15);**
- **d) transmitting a response to the application request from the application server to the end user application, and converting the response to the application request from the language running on the application server to the first language of the first end user application (col. 5 lines 12-17); and**
- **e) wherein the connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language (col. 5 lines 6-12), and (ii) convert a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language (col. 5 lines 13-16), each comprise:**
  - **1) invoking connector metamodels of respective source language and target language ("mapping file" col. 5 lines 6-15);**
  - **2) populating the connector metamodels with metamodel data of each of the respective source language and target language, the metamodel data of the target language including a map, mapset, and a mapfield (Figures 3 and 10; col. 5 lines 29-48; col. 9 lines 10-22); and**
  - **3) converting the source language to the target language (col. 9 lines 10-22).**

Ben-Shachar fails to specifically disclose a mapping support language and a web server. However, Flanagan et al. disclose a mapping support language (col.

10 lines 1-16). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine these references because both references focus on providing server processing to clients…

Response to Arguments

Applicant's arguments filed 03 January 2007 have been fully considered but they are not persuasive…

Applicant argues that Ben-Shachar does not teach converting the request from the first language to a form for the mapping support language on the server. However, Ben-Shachar teaches translating "the application requests into formats of the database" (col. 5 lines 9-10). The requests are translated so that the database can understand them. Since the database receives requests and sends responses, it functions as a server (col. 5 lines 9-10, 13-14). Examiner has not relied upon Ben-Shachar to teach a mapping support language.

Applicant argues that Flanagan does not teach or suggest a mapping support language and combining Flanagan with Ben-Shachar would not produce the claimed invention. Examiner respectfully disagrees. Flanagan provides Basic Mapping Support map as an example of a host transaction map (col. 10 line 11). This can be imported from the host (Fig. 7 step 126). Therefore, Flanagan teaches importing a BMS map file from a host in order to create a host transaction (Fig. 7 step 126). The transaction map is used to create the host transaction, which is sent to the host (col. 2 lines 21-24). This at least implies that the host can be using a mapping support language. The transaction map is used to translate the transaction, which corresponds to translating application requests sent to a database taught by Ben-Shachar (col. 5 lines 7-12).

Applicant also argues that the combination of Ben-Shachar and Flanagan fail to specifically teach a map, a map set and a map field. However, Ben-Shachar teaches a map (Fig. 10 shows MAPPING RECORD 1030.1 being mapped to SELF-DESCRIBING RECORD 1020), a map set (Fig. 10 shows MAPPING PACKAGE 1010 which provides a set of maps, specifically 1030.1 mapped to 1020 and 1030.2 mapped to 1020) and a map field (Fig. 10 shows fields, including MAPPING FIELD 1040.1). A description of Fig. 10 is given in col. 9 lines 9-22.

Applicants respectfully traverse the Examiner's rejections. The present invention provides a method of processing an application request on an end user application and an application server including a mapping support language. In accordance with the present invention, the method includes: a) initiating the application request on the end user application in a first language with a first application program, wherein the end user application is a web browser; b) transmitting the application request to the server and converting the application request from the first language of the first end user application to a form for the mapping support language running on the application server, wherein the end user application is connected to the application server through a web server, and the web server comprises a connector; c) processing

said application request on the application server; and d) transmitting a response to the application request from the application server to the end user application, and converting the response to the application request from the mapping support language running on the application server to the first language of the first end user application. The connector comprises invocation and transformation capabilities, wherein the connector comprises a language metamodel to define data structures that represent connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable, wherein the connector comprises a type descriptor metamodel that language neutral and that defines a physical realization, a storage mapping, and a plurality of constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages, wherein the connector comprises invocation metamodel data, application domain interface metamodel data, transaction message metamodel data, and type descriptor metamodel data. The connector is configured to (i) convert the application request from the first language of the first end user application as a source language to the language running on the application server as a target language, and (ii) convert a response to the application request from the language running on the application server as a source language to the first language of the first end user application as a target language. Each includes the steps of: 1) invoking connector metamodels of respective source language and target mapping support language; 2) populating the connector metamodels with metamodel data of each of the respective source language and target mapping support language, the metamodel data of the target mapping support language

including a map, a mapset, and a mapfield, wherein the mapset comprises a plurality of programming attributes, wherein the programming attributes comprise a storage operand that varies based on a language of an application program; and 3) converting the source language to the mapping support language. Ben-Shachar in view of Flanagan does not teach or suggest these features, as discussed below.

Applicants agree with the Examiner that Ben-Shachar fails to specifically disclose a mapping support language. The Examiner has relied on Flanagan to cure the defects of Ben-Shachar. Applicants respectfully submit that Flanagan does not teach or suggest the connector "wherein the connector comprises invocation and transformation capabilities, wherein the connector comprises a language metamodel to define data structures that represent connector interfaces, wherein the language metamodel indicates a source language, a target language, and a mapping between the source language and the target language, wherein the language metamodel comprises declaration text that is not editable, wherein the connector comprises a type descriptor metamodel that language neutral and that defines a physical realization, a storage mapping, and a plurality of constraints, wherein the type descriptor metamodel provides a physical representation of individual fields of a given data structure, wherein the type descriptor metamodel provides data types mapping between languages," as recited in independent claims 1, 5, and 8. Nowhere does Flannagan teach or suggest these features.

Applicants respectfully submit that Flannagan also does not teach or suggest the metamodel data of the target mapping support language including a map, a mapset, and a mapfield, "wherein the mapset comprises a plurality of programming attributes, wherein the

programming attributes comprise a storage operand that varies based on a language of an application program," as recited in amended independent claims 1, 5, and 8.

Therefore, Ben-Shachar in view of Flanagan does not teach or suggest the cooperation of elements as recited in independent claims 1, 5, and 8, and these claims are allowable over Ben-Shachar in view of Flanagan.

Conclusion

In view of the foregoing, Applicants submit that claims 1, 5, and 8 are patentable over the cited references. Applicants, therefore, respectfully request reconsideration and allowance of the claims as now presented.

Applicants' attorney believes that this application is in condition for allowance. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

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